Name: Farmer 4 **Address**

Resource Setting **Rotation**

Alternative: Benchmark **Level of Analysis**

Action **Kinds, Amount, Type**	**Effects** **Of Alt. on Benchmark**	**Impacts** **Of Effect on Farm**
Corn Plow: 5-18 with 115 hp tractor. Disk: 13 foot offset with 65 hp tractor. Plant: 4 row with 65 hp tractor, 75 lbs. N, 125 lbs. P, 170 lbs. K, 25,000 population. Spray: 20 foot with 65 hp tractor. Custom operation: Anhydrous. 100 lbs. Nytan. Chop: 2 row with 115 hp tractor, 65 hp transport. Custom operation: Combine $30 per acre plus fuel. Flail chop where combined: 8 foot with 85 hp tractor. **Hay** Plow: 5-18 with 115 hp tractor. Disk/roller: 13 foot Pulvimulcher with 85 hp tractor. Fertilize: Broadcast with 0-40-200, 200 lbs. per acre. Roll: Pulvimulcher as above. Drill: 21 hole drill with 40 hp tractor. "Tripper" used as seed. (Continued on next sheet)	Soil Ephemeral gullies on all fields. Soil building up at base of field across road from farmstead. Yields declining. Wet fields behind barn. Sediment carrying through barn and barnyard. Water Runoff of sediment clogging ditches, muddying streams. Runoff through barnyard carrying animal wastes. Air None noted. Plants Yields declining, more sensitive to drought or wet. Animals Cultural None noted.	Positive Known system. Equipment suited to task. Negative Ephemeral gullies increase repair costs. Wet spots in fields cause ruts, decreased yields, make fields hard to work. Sediment in barn makes barn maintenance difficult. Sediment in ditches increases flooding. Nutrient runoff in violation of DEC guidelines. Declining yields mean more purchased feed. Sensitivity to weather extremes increases risk. Stretched out on time.

Name: Farmer 4	Address	
Resource Setting	**Rotation**	
Alternative: Benchmark	**Level of Analysis**	
Action **Kinds, Amount, Type**	**Effects** **Of Alt. on Benchmark**	**Impacts** **Of Effect on Farm**
Roll: As above. Mow: 9 foot with 65 hp tractor Chop: 6 foot pickup head with 115 hp tractor. Mow: As above. Rake: 9 foot side delivery with 65 hp tractor. Baler/kicker: with 115 hp tractor, 65 hp tractor transports. Chops first cut, bales second, chops third (if available). For anhydrous operation, Agway knifes in N. For fertilizing hay, Agway will bring a filled spreader to the farm and the farmer will spread it.		

Name: Farmer 4 **Address**

Resource Setting **Rotation**

Alternative: Conservation Tillage **Level of Analysis**

Action **Kinds, Amount, Type**	**Effects** **Of Alt. on Benchmark**	**Impacts** **Of Effect on Farm**
Corn Chisel plow: 7 shank with 115 hp tractor. Disk: 13 foot offset with 65 hp tractor. Rest of operations same as benchmark.	Soil Ephemeral gullies eliminated. Average soil loss reduced to "T". No sedimentation in ditches or barn. Wet spots eliminated. Water No nutrient runoff. Streams clear. No flooding from culverts. Air Dust reduced. Plants Yields stablilized. Less sensitive to weather extremes. Risk reduced. Animals Cultural	Positive Not burying tractor No dead furrow with chiseling Barn maintenance lower. Machinery maintenance lower since no gullies. Spray holds better since not washing out. Streams clear, fewer herd health problems. Vet bills down. Dust reduction. Does not run over rows to chop corn (this refers to the ability to position the tractor in the hay to chop edges of corn instead of losing the last few rows of corn). Sediment layer on corn eliminated, increasing yields. Corn yields less variable. Easier to work fields, since no odd shapes. Time savings. Scouts corn while haying. No need to walk a big field to determine if corn has any problems. Yields are up. Can chop a few strips at a time, instead of having to chop an entire field.